REMARKS

Claims 32-92 are pending in the application.

Claims 73-89 have been allowed.

Claims 32-72 and 90-92 have been rejected.

Claims 93 and 94 have been added.

Appreciation is expressed for the indicated allowability of claims 73-89.

Rejection of Claims under 35 U.S.C. § 102

Claims 32-42, 45-70 and 72 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Anthony J. McAuley & Paul Francis, "Fast Routing Table Lookup Using CAMs," ("McAuley"). Applicants respectfully traverse this rejection.

Claim 32. Claim 32 of the present invention recites a limitation "configuring a plurality of access control specifiers in an access control element according to a priority of a type of each access control specifier." Similarly, Claim 46 recites a limitation "one or more access control specifiers wherein said one or more access control specifiers are of one or more types of access control specifiers" and "an access control element, wherein said access control element is configured to store said one or more access control specifiers according to a priority of the type of each access control specifier." As stated in the application, an access control element operates on a set of selected elements of a packet header for each packet. *See* Application, p.9, ll.2-3. Further, the application identifies the elements of a packet header to include information related to a source device, a destination device, a port identifier for a port at the source device, a port identifier for a port at the destination device, and a protocol type. *See* Application, p.9,

ll.6-9. Access control specifiers that are in an access control element determine those elements of the packet header that are to be tested. *See* Application, p.10, ll.11-19. Thus, claim language relating "type of each access control specifier" is linked to the elements of a packet header (e.g., a source device, a destination device, a port identifier for a port at the source device, a port identifier for a port at the source device, a port identifier for a port at the destination device, and a protocol type).

Applicants respectfully submit that McAuley does not make any reference to a type of access control specifier, wherein these types can be one of several many different pieces of information. The Office Action states that "the type of an access control specifier corresponds to information (search pattern) in an access control entry (search word)" and refers to McAuley, p.6, right column, wherein McAuley purportedly "discloses logical CAM is used to store data and sets its mask value and each CAM has its own search pattern." Applicants respectfully submit that the McAuley disclosure only discusses information of a single type, and therefore McAuley cannot configure access control specifiers according priority of type, nor can McAuley select a match according to an ACS with a highest associated priority based on type.

For at least these reasons, Applicants submit that independent Claims 32 and 46, and all Claims depending upon them, are allowable over McAuley, and request Examiner's indication of same.

To further clarify the distinction of the present invention over McAuley, Applicants have included two new Claims 93 and 94, depending upon Claims 32 and 46, respectively. These claims contain limitations that the type of an access control specifier corresponds to one or more of a source port, a destination port, a protocol type, an input interface, and an output interface. Applicants respectfully submit that since McAuley

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provides no disclosure of these specific types of access control specifiers, these claims

are also allowable over McAuley.

Claims 91 and 92. Dependent Claims 91 and 92 contain a limitation "one or more

access control specifiers include a label match mask and a label match pattern."

Applicants respectfully submit that the sections of McAuley cited in the Office Action do

not disclose at least the claimed label match pattern and therefore cannot anticipate these

claims.

The Office Action identifies an access control specifier as corresponding to

McAuley, Table 2, which illustrates address/mask pairs and also refers to McAuley, p.2,

right column, last paragraph, which states

> We can model the general lookup function as follows. The routing table
> consists of a list of *address/mask* pairs, and the associated information that
> gets returned as a result of the lookup. For example, Table 2 shows how
> the entries in Table 1 would be stored. The input to the lookup function is
> the *packetAddress*. If the *size* of a mask is the number of 1 bits in the
> mask, the result of the lookup function is the associated information of the
> entry with the largest mask such that: mask&packetAddress = address,
> where & is the bitwise logical AND function.

The Office Action then suggests that McAuley, Figure 3 discloses a label match mask,

which is an input to the illustrated AND gates ("Mask-3, Mask-6 or Mask-10") and a

label match pattern corresponding to "201, 201-829 or 201-820-4484," which is the

output from the AND gates.

Applicants respectfully submit that the cited portion of McAuley purported to

correspond to the claimed label match pattern is not a label match pattern as disclosed in

the present application. As stated in the application,

> The access control memory 210 includes a CAM (content-addressable
> memory) having a sequence of address control specifiers 211. Each
> access control specifier 211 includes a label match mask 212 and a label

match pattern 213. For each access control specifier 211, each bit of the label match mask 212 determines whether or not a corresponding bit of the packet label 200 is tested. If so, the corresponding bit of the label match pattern 213 is compared for equality with the corresponding bit of the packet label 200. If all compared bits are equal, the access control specifier 211 matches the packet label 200. Bits that are not compared have not effect on whether the access control specifier 211 is considered to match the packet label 200 or not.

Application, p.10, ll.11-19. Applicants respectfully submit that the Office Action cites to no disclosure within McAuley of a label match pattern wherein a corresponding bit of the label match pattern is compared for equality with a corresponding bit of the packet label as disclosed in the application and claimed in Claims 91 and 92. Further, the claim limitations state that the access control specifiers include a label match mask and a label match pattern. There is no relation between the section of McAuley cited as disclosing the access control specifier and that related to the label match pattern.

For at least the reasons stated above, Applicants respectfully submit that dependent Claims 91 and 92 are allowable over McAuley.

Rejection of Claims under 35 U.S.C. § 103

Claim 90. Independent Claim 90 is rejected under 35 U.S.C. § 103(a) as being unpatentable over McAuley in view of U.S. Patent 5,509,006, issued to Wilford *et al.* ("Wilford"). Applicants respectfully traverse this rejection.

In order for a claim to be rendered invalid under 35 U.S.C. § 103, the subject matter of the claim as a whole would have to be obvious to a person of ordinary skill in the art at the time the invention was made. *See* 35 U.S.C. § 103(a). This requires: (1) the reference(s) must teach or suggest all of the claim limitation; (2) there must be some teaching, suggestion or motivation to combine references either in the references

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themselves or in the knowledge of the art; and (3) there must be a reasonable expectation of success. *See* MPEP 2143; MPEP 2143.03; *In re Rouffet*, 149 F.3d 1350, 1355-56 (Fed. Cir. 1998).

Independent Claim 90 contains method limitations (1) "selecting an output interface to which to forward the packet," and (2) "determining forwarding permission for the packet," and (3) "wherein the selecting step is performed in parallel with the determining step." Applicants respectfully submit that neither McAuley nor Wilford, alone or in combination teach these limitations.

The Office Action admits that McAuley does not disclose determining forwarding permission for the packet. *See* Office Action, p.15. Yet, the Office Action posits that McAuley provides disclosure that the selecting step is performed in parallel with a determining step. *See id.* Applicants submit that since McAuley does not disclose a determining step, then McAuley cannot disclose performing the selecting step in parallel with the undisclosed determining step. Further, the Office Action makes no claim that any disclosure within Wilford remedies this defect. Since the Office Action does not establish the presence of this limitation in McAuley or Wilford, alone or in combination, those references cannot be said to render Claim 90 obvious. The burden is on the Examiner to support a case of obviousness, including whether the prior art references teach or suggest all of the claim limitations. *See* MPEP 706.02(j).

The Office Action suggests that simultaneously searching all logical CAMs satisfies the parallel selecting and determining steps. Applicants acknowledge that McAuley discloses "packetAddress is used to search all the logical CAMs simultaneously," as pointed out in the Office Action. But parallel CAM operation is not

"selecting an output interface" and "determining forwarding permission" in parallel, as claimed in Claim 90.

In addition, Applicants respectfully submit that the Examiner has not satisfied the burden of factually supporting the alleged motivation to combine the two references. The Examiner must provide evidence to suggest the combination and "[b]road conclusory statements regarding the teachings of multiple references, standing alone, are not 'evidence.'" *See In re Dembiczak*, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999).

A reason, suggestion, or motivation to combine may be found explicitly or implicitly: (1) in the prior art references themselves; (2) in the knowledge of those of ordinary skill in the art that certain references, or disclosures in those references, are of special interest or importance in the field; or (3) from the nature of the problem to be solves, 'leading inventors to look to references relating to possible solutions to that problem.'" *Ruiz v. A.B. Chance Co.*, 234 F. 3d 654, 665 (Fed. Cir. 2000). The Office Action presents nothing more than broad, generalized statements relating to the motivation of a person of ordinary skill, which Applicants respectfully submit is insufficient to support a funding of obviousness.

While the Office Action states that "it would have been obvious to those skilled in the art at the time the invention was made to implement Wilford's access control list into McAuley's method by converting the access control list into routing tables to arrive the claimed invention with a motivation to provide the switch with a way to control network access base on source and destination of the packet," the Office Action fails to state any showing of a motivation to combine the references from within the references themselves. McAuley provides no indication that the disclosed routing tables could or should include access control list information instead of the address routing information

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disclosed. Wilford provides no disclosure of placing an address control list in a routing table such as that found in McAuley which could then be masked.
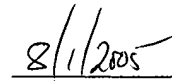
The Office Action further does not establish that the references that are combined are of special interest or importance in the field. Nor does the Office Action present any evidence of a problem to be solved from within those references themselves. Instead, the Office Action appears to fabricate such a problem to be solved, not from the teachings of the cited references, but from the teachings of Applicant's own disclosure. Using Applicant's own disclosure as a blueprint for providing the motivation to combine prior art references in an obviousness determination is impermissible. *See W.L. Gore & Assoc. v. Garlock*, 721 F. 2d 1540, 1552-53 (Fed. Cir. 1983).

For these reasons, Applicants respectfully submits that the Office Action fails to present a *prima facie* case of obviousness of Claim 90 and that it is in condition for allowance. Applicants therefore request the Examiner's reconsideration of the rejection to that claim.
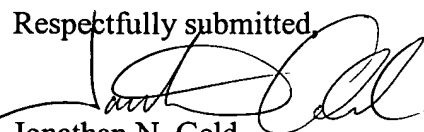
CONCLUSION

In view of the amendments and remarks set forth herein, the application and the claims therein are believed to be in condition for allowance without any further examination and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5090.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, COMMISSIONER FOR PATENTS, P. O. Box 1450, Alexandria, VA 22313-1450, on August 1, 2005.

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